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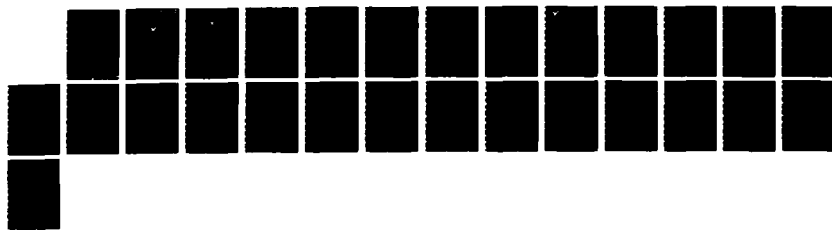
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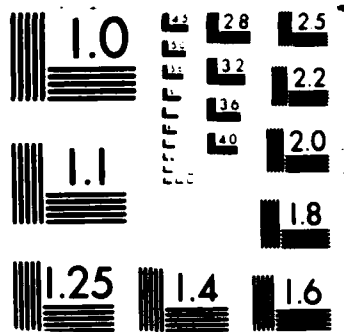
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# AIR COMMAND AND STAFF COLLEGE

## STUDENT REPORT

LOGISTICS PLANNING ROLE IN  
COMBAT SUPPORT DOCTRINE

MAJOR JOSEPH D. SMITH

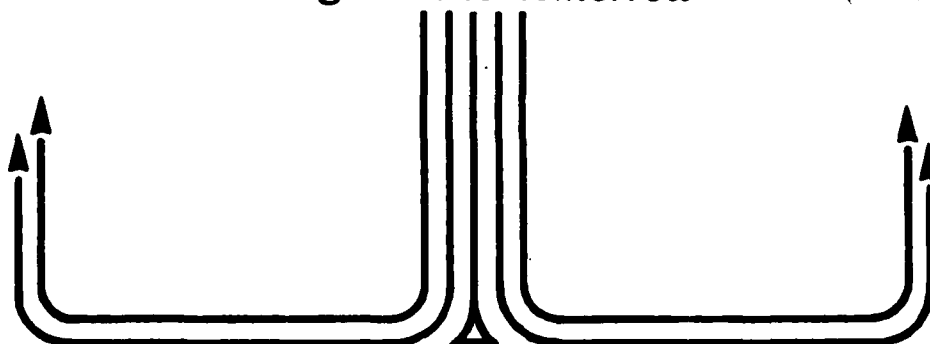
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**REPORT NUMBER** 87-0895

**TITLE** LOGISTICS PLANNING ROLE IN COMBAT SUPPORT DOCTRINE

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## PREFACE

The US Air Force has published long-awaited logistics doctrine in AF Manual 2-15, Combat Support Doctrine. Now we need to start work on building doctrine for each of the logistics functions, using AFM 2-15 as a foundation. This paper is an attempt toward that end. It is a broad look at the role logistics planning plays in combat support and points the way to planning doctrine.

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## ABOUT THE AUTHOR

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Major Smith's logistics background goes back nearly twenty years. He attended the Avionics Officer's Course at Keesler AFB, MS, in 1968 and his first working assignment was as the Avionics Officer for 58 Weather Reconnaissance Squadron, Kirtland AFB, NM, where he maintained RB-57F and C model aircraft for three and one-half years. In 1973, Major Smith was assigned to the 388 Avionics Maintenance Squadron, Korat Royal Thai AFB, as the Communications/Navigation Branch Chief. At Korat, he worked with A-7D, F-4E, EC-121, HC-130, EB-66, and F-105 aircraft. After a short tour in Southeast Asia, Major Smith was assigned as the Logistics Plans Officer for 602 Tactical Air Control Center Squadron, Bergstrom AFB, TX. In 1977, he was assigned to 602 Tactical Air Control Wing headquarters, Bergstrom AFB, TX, as a staff Logistics Plans and Programs Officer. While associated with the Tactical Air Control System, Major Smith gave staff assistance to twenty-one active duty units, yearly advised thirty-eight Air National Guard units on the subject of combat support readiness, and was a recognized authority on mobility planning and coordination with the US Army for joint exercises.

Major Smith left active duty in 1979 and was accepted as an Air Force Reserve, Individual Mobilization Augmentee. In this capacity, he has been assigned to the National Security Agency, Fort Meade, MD, in Third Party Acquisition and is presently assigned to HQ Electronic Security Command, Kelly AFB, TX, as Chief, Logistics Plans and Programs Division (IMA position).

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## EXECUTIVE SUMMARY

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**REPORT NUMBER** 87-0895

**AUTHOR(S)** MAJOR JOSEPH D. SMITH, USAFR

**TITLE** LOGISTICS PLANNING ROLE IN COMBAT SUPPORT DOCTRINE

I. Purpose: To prove the role of logistics planning as a combat support function and establish the need for logistics planning doctrine.

II. Problem: Logistics planning is provided for by Air Force regulations and is used throughout the Air Force. However, logistics planning is utilized differently by the various commands because there is no Air Force doctrine to standardize the subject. Disparity in logistics planning leads to inefficient combat support.

III. Data: The following four factors of modern warfare require that Air Force logistics planning be based on common and sound doctrine:

1. Continuous nature of war and dwindling resources demand continuous and more efficient logistics planning.

2. Necessity of joint forces capability adds complexity to logistics planning.

3. The capability of enemy and friendly forces to strike deeply requires different logistics planning than before.

4. Space adds a dimension for the military that has not been addressed by logistics planning.

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## CONTINUED

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IV. Conclusion: If logistics planning is to keep pace with today's changing Air Force, we must carefully define its role through official doctrine.

V. Recommendation: The US Air Force must publish official, universal doctrine that will describe logistics planning as a combat support function.

## Chapter One

### INTRODUCTION

Logisticians are a sad, embittered race of men, very much in demand in war, who sink resentfully into obscurity in peace. They deal only with facts, but must work for men who merchant in theories. They emerge during war because war is very much fact. They disappear in peace because in peace, war is mostly theory (13).

This observation by a now-forgotten Army logistic planner is a fair statement of the problem the Air Force has in treating with logistics. The problem is that logistics, unlike operations, has no official Air Force theory or doctrine and, therefore, has no standard definition. Because of this, commanders can see their missions clearly in terms of operations, but logistics remains obscure.

The solution to the problem is to develop logistics doctrine and use the doctrine to define logistics.

At the heart of warfare lies doctrine. It represents the central beliefs for waging war in order to achieve victory. Doctrine is of the mind, a network of faith and knowledge reinforced by experience which lays the pattern for the utilization of men, equipment, and tactics. It is the building material for strategy. It is fundamental to sound judgement (5:1).

When General Curtis E. Lemay made this statement in 1968, he presented military doctrine as the central mindset of the warrior and the necessary beginning to victorious warfighting.

Basic doctrine guides the military in defining itself as a support of National Security Objectives. Basic Aerospace Doctrine of the United States Air Force, AFM 1-1, defines the Air Force role in carrying out National Objectives in terms of the Air Force as a "Military Instrument of National Power," "Employing Aerospace Forces," Air Force "Missions and Specialized Tasks," and "Organizing, Training, Equipping, and Sustaining Aerospace Forces" (5:ix). AFM 1-1 assigns to logistics the responsibility of ensuring "that Air Force forces have the support to train daily and the support to fight at all levels of intensity for as long as necessary to ensure victory" (5:4-9). "This requires a total logistics effort, both in planning and implementing, that includes two prime

responsibilities -- to support the design and extent of force structure and to design the support system required to maintain and supply that force" (5:4-9). With this basic foundation laid in AFM 1-1, Air Force has begun to build a framework for logistics doctrine.

AFM 2-15, Combat Support Doctrine, offers the warrior a command perspective of logistics, but it does not go far enough. The manual describes what needs to be done in preparing for combat, but not how to do it. Because Air Force people have become highly specialized, they do not fully comprehend the intricacies of logistics and the implications for combat operations. Consequently, each Air Force combat support function urgently needs to document its basic concepts, values, and operating principles in an official doctrinal publication (2:14).

AFM 2-15 presents the doctrine of combat support as a dynamic process composed of the eight subprocesses of definition, acquisition, maturation, distribution, integration, preservation, restoration, and disposition. "Combat support is the activity that creates and sustains warfighting capability by organizing, training, and equipping aerospace systems for deployment and employment" (6:1-1). One of the working functions included in the combat support activity is logistics. Logistics itself is divided into several operating divisions, each with a different role to play. These roles must be coordinated not only within the combat support arena but between support and operations if Air Force is to be successful in warfare.

The tool used to coordinate the application of doctrine to the reality of conflict is plans. The Air Force plans function has basically two parts: operations and logistics. It is the purpose of this paper to outline the role of logistics planning in combat support, using the combat support process from AFM 2-15 as a guide. When the necessity of logistics planning is understood, the way will be clear toward logistics planning doctrine.

## Chapter Two

### HISTORICAL VIEW

Traditionally, studies of warfighting have concentrated on strategy and tactics from an operational viewpoint. "Writers of military history, however, have ignored logistics history to the point of making it one of the most neglected topics in military literature" (7:i). American commanders have given their attention to armies, navies, and air forces -- the visible weapons of war -- because logistics was not so visible nor so easily understood as weapons employment. Early in American history, foraging was an acceptable method of supply and it was successful due to availability of foodstuffs and the small forces employed. However, this sort of support was soon antiquated and with the advent of the Revolutionary War, "we can see the emergence within the US of five basic aspects of logistics: the industrial base, requirements, acquisition, distribution, and maintenance" (3:7). Combat support has grown quickly from a decentralized, simple concept to a highly-centralized and complex organization without which weapon systems cannot be conceived, much less employed. "Elements of logistics run through all military operations from the time of the first thought until the bombs are dropped on the enemy" (7:ii). Today, with fewer resources than ever, wider-spread military targets, and multi-level conflict, "it has become fashionable to make a bow toward logistics in current literature, but this is not enough" (7:i).

The US military became accustomed to rapidly constructing and deploying large forces as a threat arose, training them on the battlefield then drawing down to nearly nothing when the threat passed. This is no longer possible. The US must maintain a large military force at all times. There are two reasons for this: 1. the complex spectrum of threats facing our country demands a level of expertise and readiness attainable only through the continuity of a standing military; 2. the threats are constant, which does not allow drawdown. In this situation, the role of logistics is more apparent because it too must be constant and is no longer simple. The importance of logistics has always been the same, but in the past, commanders have been able to take support somewhat for granted. "A common view is that when war comes, logistics will spring from the US arsenal to satisfy the needs" (8:6). Upon entering World Wars I and II, the United States was able to build nearly overnight the military forces and support it needed to overcome the opposition. However, this capability was due to the sheer, overwhelming amounts of raw materials at her command --

resources denied the enemy -- and not to foresight or planning. Because there was more than enough men, equipment, and materiel, support was simply pumped into the war until it overflowed and everyone grabbed what he wanted. Commanders gave little thought to including logistics in the war planning. They had not learned that "in all war situations, the actions and decisions of command, whatever the level, are based on a blend of strategical, logistical, and tactical plans" (12:10). This attitude prevailed until the latter part of the Viet Nam Conflict when the oil crisis awakened Americans to the fact that resources are not unlimited and that the US depends to a great extent on other countries for raw materials of strategic importance. Confronted, then, with the realities of finite resources and a constant, complex, and increasing threat, we have had to admit the importance of logistics and the necessity of preplanned preparedness.

As the more sophisticated weapons (missiles and space) begin to emerge as new national deterrants we must rely more and more completely upon pre-planned actions and less and less upon the flexibility and ingenuity of the warrior. Pre-planning becomes so important and so fundamental that upon it depends the effectiveness of the civilian and military components of the war waging machinery. That which we have on hand at the beginning or start of a conflict represents our total immediate capability (11:4).

Admitting we need to plan logistics support and doing it are two different things. We must first define the logistics planning function then show its application to Combat Support.

## Chapter Three

### LOGISTICS PLANS DEFINITION AND RESPONSIBILITIES

Anything is best defined in terms of what it does and logistics planning responsibilities are well documented in Air Force regulations. AFR 400-25 lists twenty-nine specific areas of performance for the logistics plans function at Major Command level. For Headquarters USAF level, AFR 28-3 condenses those twenty-nine areas into four responsibilities which serve nicely as a broad, definitive outline for logistics planning.

First of all, we can state the equality of logistics and operations planning functions. "Logistics and operations planning must be done in concert to define and refine support requirements and solve problems. It is essential to conduct this planning concurrently during the development of time-phased force and deployment data" (4:313). One planning function will not work at all without the other. Plans for an operation cannot proceed intelligently unless plans for necessary support are in process, and logistics planning is normally the larger endeavor. Operations spring from logistics and logistics exists solely to support operations. Logistics and operations planning, then, out of necessity, begin and proceed on an equal footing.

Secondly, we see that logistics planning is not reserved for use by higher headquarters but is universally applied through the Air Force as a function of command. "Commanders at all levels must integrate operations and logistics planning from the beginning of the planning cycle" (4:313). "The logistic viewpoint is essentially that of the commander" (1:9), and "the command point of view is that logistics itself has no purpose other than to create and to support combat forces which are responsive to the needs of command" (1:9). Logistics planning is not the sole property of higher headquarters "planners", but is a necessary tool for effective command throughout USAF. It creates combat forces and combat support.

The third responsibility from AFR 28-3 ranks logistics planning relative to strategic and tactical planning. "Logistics planning for unified and specified commands and joint forces must be carried out concurrently with strategic planning and in advance of tactical planning" (4:313). "Sound logistics forms the foundation for the development of strategic flexibility and mobility.



If such flexibility is to be exercised and exploited, military command must have adequate control of its logistic support" (1:10).

In the literature of military history, there is no shortage of materials dealing with the "strategic" and "tactical" decisions that have led nations and commanders to victory and defeat. Too often, though, the chronicles of battle tend to resemble a gigantic board game, with commanders seemingly able to move their forces and resources about at will -- feinting, encircling, massing, and thrusting toward their objectives. A close examination, however, reveals that throughout the history of warfare crucial strategic and tactical decisions were often direct reflections of the "logistical" needs and capabilities of opposing armies (3:1).

Finally, AFR 28-3 points out the responsibility that consumes most of a logistics planner's time -- coordination. "Complete and integrated staff coordination permits simultaneous planning to ensure logistics readiness of forces and facilities to support operations" (4:313). The logistics planning function must orchestrate the efforts of all logistics agencies to produce effective combat support of operations. To do this well requires a good, working knowledge of other functions in logistics and of operations as well.

In short, the most authoritative Air Force view of the subject, AFR 28-3, presents logistics planning as (1) equal to operational planning, (2) a command level tool used throughout the Air Force, (3) a strategic function, and (4) a function that coordinates all combined logistical and operational efforts. More concisely, logistics planning is necessary to combat forces dedicated to warwinning.

At its most elementary level, "logistics planning is essential to support war and contingency operations" (4:313). It provides the medium for shaping available resources most effectively in support of operations requirements. From conception to disposition of a weapon system or war plan, logistics planning is intimately involved, taking its cues from operations and coordinating the efforts of the logistics or combat support community. It is the catalyst which allows operations and combat support to react together and produce warfighting capable of supporting national objectives.

The function of logistics planning is to determine the feasibility and supportability of operations requirements. Resource availability must be assessed in terms of materiel, manpower, information, and facilities to judge feasibility. Then supportability is determined by calculating whether or not the resources can be delivered over the length of time required by operations. In other words, can it be done, can it be supported and for how long? Making such a determination can be lengthy and logistics

planners work closely with other logistics functions and operations throughout the process so everyone involved knows what progress is being made and so necessary adjustments can be introduced to avoid stalemate and lost time.

From HQ USAF, across the MAJCOMs and down to the lowest unit level, logistics plans are formulated, coordinated and exercised under one name or another. Some offices are called Logistics Plans, some Programs and Mobility, some Mobility, and others may have no title. The job, however, is much the same -- combat support. "Combat support is structured to create and sustain combat capability in a variety of aerospace systems" (6:2-1). This structure is called the combat support process and is composed of eight processes which work dynamically to meet "Air Force combat operational needs" (6:2-1).

## Chapter Four

### LOGISTICS PLANNING AND THE COMBAT SUPPORT PROCESS

The combat support process is represented by two models in AFM 2-15 (See figures 1 and 2). The first model portrays combat support as a large box within which resources are added to combat needs to produce combat capability. As a theory, this representation is practical. It states that there is a process to turn needs into capability. However, a commander requires more than theory. He must understand the operation and control of the support process so he can use it.

Figure 2 presents the mechanics of the combat support process. "The support process begins, proceeds, and ends with the determination of combat operational needs" (6:2-1).

The process includes (1) definition, (2) acquisition, (3) maturation, (4) distribution, (5) integration, (6) preservation, (7) restoration, and (8) disposition. This support process is exhaustive and iterative, but not necessarily sequential. All of the processes are highly interdependent and some take place concurrently. Each process varies in duration, intensity, and scope according to the unique characteristics of each aerospace system. In essence, the entire support process encompasses the Air Force life cycle of an aerospace system -- its people, materiel, facilities, and information (6:2-1).

So, "the combat support process is actually eight basic processes" (6:2-1) driven by combat needs. It is a complex process requiring constant evaluation and coordination to ensure the logistics and operations communities understand each other and that participating logistics functions deliver their support in correct quantity, quality, and time. This is the job of logistics planning.

Let's look again at figures 1 and 2. Something appears to be missing. The combat support process can be applied to any imagined combat need. However, if the need cannot be supported, the process will bog down or produce something other than the required combat capability, thus wasting time and resources. Logistics planning, in concert with operations planning, determines

whether or not and how needs can be supported before their introduction to the support process, thereby ensuring a realistic combat capability for warfighting. Logistics planning does not direct or control the combat support process, but it acts as a guide and as an indispensable "lubricant" which minimizes friction between the working parts of the process and combat needs. It is the catalytic agent which causes logistics functions to react with operations requirements to produce combat capability.

Each of the eight processes is influenced by logistics planning. In the definition process, however, logistics planning is most visible because it is here that a combat need first takes shape as determined by logistics feasibility/supportability.

This process is primarily an Air Force planning activity that balances national priorities against combat needs and translates them into a future scheme for aerospace forces. Based on doctrine, these plans determine the organization and composition of aerospace resources--the quantity and quality of people, materiel, facilities, and information. They specifically address force structure (the number and mix of aerospace systems) in terms of modernization, readiness, and sustainability. These plans include the general and conceptual long-range plans and the specific, near-term plans that detail budgetary programs. The whole process centers on the information as it relates to combat capability: what combat capability is and how to measure, acquire, and retain it. The longer range plans attempt to prepare for a world in terms of future economic, political, and military environments. These plans provide a vision of tomorrow's Air Force with sufficient definition to allow a systematic development of force structure. This definition must reflect an understanding on how combat needs, as expressed by lower Air Force echelons as well as higher headquarters, will be integrated with those of the other Services and allies. Furthermore, long-range planning must undergo periodic refinement until placed into near-term plans and programs that identify specific aerospace systems (6:2-2).

Once combat needs are defined in light of available resources, plans are formulated for execution of the remaining processes. These plans are directly affected by the dynamics of the combat support process and will change as necessary throughout the process to better support it.

The combat support process is an ongoing system which operates in peace or war. "Combat support sustains combat forces" (9:1). In peace, it is used to prepare for combat. In war, it is used to directly support combat. The process proceeds according to plans and:

Logistics plans can be upset by operational situations, by error in estimates of manpower, aerospace ground equipment, supply, etc., or by normal randomness or unpredictability of demand. As the elder von Moltke's warning states, "No plan survives contact with the enemy" (10:15).

This is not to infer, however, that once the enemy is met, no plans are used. What it does mean is that combat support in peace time is formed around "worst case" planning, which is logical. Since however, war is basically illogical, logistics must be prepared to alter part or all of its plans in order to continue support in the face of combat reality. Logistics planning must pre-plan for war in peace and be flexible enough to re-plan as actual combat brings about different combat needs. Without a plan, combat support cannot proceed, but with an unchangeable plan, it will not succeed.

Each of the eight combat support processes contributes to building combat capability out of combat need. None of the eight can work alone but depends on the coordinated actions of the others. Logistics functions such as contracting, maintenance, supply, transportation, and acquisition are the directing forces behind the processes and they require close coordination if their efforts are to be useful. Coordination of functional effort in the combat support process is the basic reason for logistics planning.

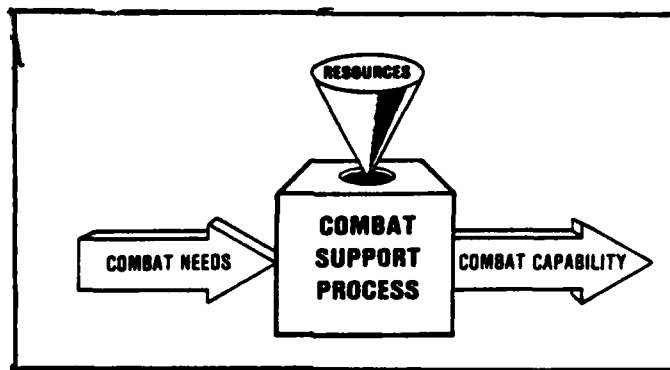


Figure 1. Combat Support (6:2-1)

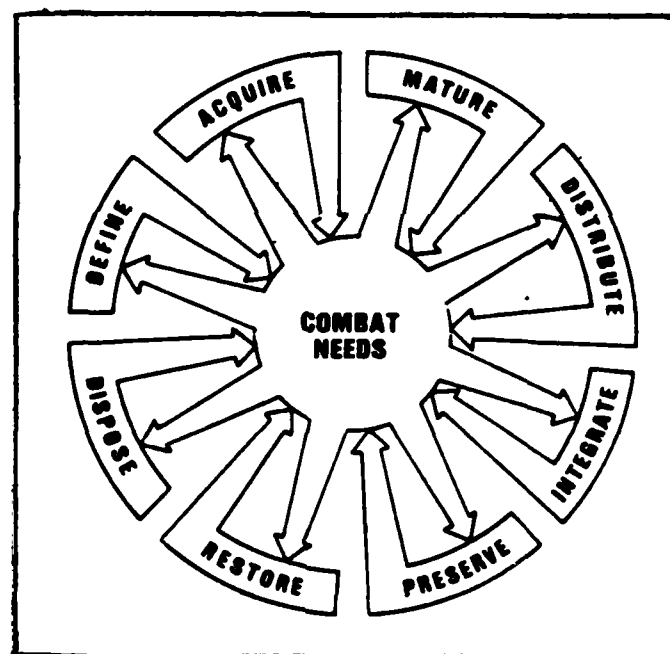


Figure 2. Combat Support Process (6:2-1)

## Chapter Five

### TOWARD DOCTRINE

Before writing doctrine, we need to settle whether or not it is necessary. Two questions apply: 1. Hasn't the Air Force been planning without doctrine up to now? 2. What new factors require that we write doctrine?

The answer to the first question is negative. Logistics planning in the past was based on doctrine but it was the separate doctrine or beliefs of the separate Air Force commands doing the planning. In other words, we have used doctrine to plan, but not the same doctrine, therefore not the same planning. This sort of plans strategy was never efficient, but on the whole it worked -- in the past. The necessity for a single, official, universal doctrine for Air Force logistics planning springs from the pressures of the present warfighting environment which is vastly different from that of the past. The evolution of modern warfare demands that what the Air Force believes about logistics planning be published as doctrine. The following factors are examples of those evolutionary demands:

1. The continuous nature of war today puts a constant demand on our dwindling resources while denying us the luxury of peacetime for recovery. Logistics planning for combat support must also be continuous and clearly defined to keep our forces equipped at all times with no confusion as to what is needed. Doctrine will guide all of Air Force to more realistically plan combat support with available resources and will teach us how to make planning more dynamic in the face of constant conflict.

2. Efficient warfighting today requires that US military forces synchronize their efforts in joint action. This means that logistics planning, at least in the Air Force, must be accomplished from a common basis. If the Air Force cannot standardize its own planning effort, it will find joint planning to be nearly impossible. Official doctrine will aid in the standardization and coordination of Air Force logistics planning contributions to the joint forces' capability.

3. Friendly and enemy forces are no longer confined to a frontline mode of fighting. Each has the capability to strike deeply and effectively behind opposing lines into what was in the past considered secure areas. This capability means we can no

longer store large amounts of support materials in small areas, but must plan evenly dispersed logistics throughout the theater, properly apportioned amongst our forces. The enemy's deep-strike capability means we must also work closely with operations to design more effective air base and supply depot defenses. We cannot depend on the Army to defend our logistics. Logistics planning doctrine will address this factor as a prime consideration in all combat support planning.

4. Military expansion into space adds a dimension that logistics planning has never dealt with before. We must begin to solidify our beliefs from what is known about space in order to lay a good foundation for future exploitation. Supporting space forces and systems is the greatest challenge logistics planning has ever faced. The extreme cost in dollars and resources and the complex coordination necessary to place and maintain anything in space requires the most carefully directed planning for combat support that we have ever done. Official Air Force doctrine will point the way for the most efficient and effective logistics planning in support of space activities.

These four factors are broad and they may not be all-inclusive; however, they serve as proof that the US Air Force needs official doctrine for logistics planning. Although early American commanders had no written logistics planning doctrine, they nevertheless had beliefs about combat support which they employed to their best advantage in battle. As technology has become more complex, resources more scarce, and American interest more global and even extraterrestrial, the US Air Force has had to admit the necessity of carefully planned logistics support. From the logistician's viewpoint, it looks like this: all warfighting must have combat support; warwinning results from the best combat support; the best combat support comes from the best logistics planning; and the best logistics planning begins with solid doctrine.



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